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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,917	06/30/1999	HIROAKI SUGIURA	862.2900	7289

5514 7590 11/19/2002

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EXAMINER	
HAVAN, THU THAO	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

HG

Office Action Summary	Application No.	Applicant(s)	
	09/342,917	SUGIURA, HIROAKI	
	Examiner	Art Unit	
	Thu-Thao Havan	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 August 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,11 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-6, and 11-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Claims **1, 3-6, and 11-12** are pending in the present application.

Response to Arguments

2. Applicant's arguments filed August 5, 2002 have been fully considered but they are not persuasive. As addressed below, Kasson et al. and Komaki teach the claimed limitations.

A.) Claims 1, 3-6, and 11-12 are objected to because of the following informalities: In particular to claims 1, 11, and 12, the "integral operation" is not stated in the specification. Appropriate correction is required.

B.) Kasson teaches normalized by a sufficiently large value (col. 22, lines 41-65; col. 23, lines 14-23 and lines 43-68; col. 9, lines 38-58; fig. 16). Kasson teaches color conversion using a grid points by normalizing with the appropriate maximum values for each dimensional of the color space in relations to tetrahedron packing. Furthermore, a maximum value is any large value. In figure 16, Kasson graphically teaches the normalized error using a function.

C.) Komaki teaches setting grid positions of the multi-dimensional look-up table (col. 1, lines 51-67;col. 2, lines 10-30; col. 9, lines 35-44). In other words, Komaki teaches the input signals R, G, B is interpolated and the values are stored in the look-up table (LUT). Furthermore, Komaki transform output data for a point from a sample point such as a grid point in a three dimensional look-up table (LUT).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **1, 3-6, and 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki (US patent no. 5,883,821) in view of Kasson et al. (US patent no. 5,390,035).

Re claim **1**, Komaki teaches a data conversion method comprising the steps of outputting a value which represents distance from an input value to a grid point of a look-up table (col. 1, lines 51-67) using the look-up table; In other words, Komaki teaches data transformation corresponds to data conversion as claimed. Data conversion is converting one data into another and data transformation is converting data too. Furthermore, Komaki transform output data for a point from a sample point such as a grid point in a three dimensional look-up table (LUT).

executing data conversion of the input value by interpolating the value obtained by the look-up table (col. 2, lines 10-30; col. 9, lines 35-44). In other words, Komaki teaches the input signals R, G, B is interpolated and the values are stored in the look-up table (LUT).

Komaki *fails* to specifically disclose "normalized by a sufficiently large value," as claimed. However, Kasson teaches normalization for data transformation (col. 22, lines

41-65; col. 23, lines 14-23 and lines 43-68; col. 9, lines 38-58; fig. 16). Kasson teaches color conversion using a grid points by normalizing with the appropriate maximum values for each dimensional of the color space in relations to tetrahedron packing. Furthermore, a maximum value is any large value. In figure 16, Kasson graphically teaches the normalized error using a function.

Therefore, taking the combined teaching of Komaki and Kasson as a whole, it would have been obvious to combine normalized by a sufficiently large value as claimed to the modified system of Komaki. Doing so would enable accuracy and efficiency without sacrificing speed or error performance.

Re claim **3**, Kasson discloses a sufficiently large value is a power of 2 (col. 2, lines 55-65; fig. 4). In other words, Kasson teaches a power of 2 for the normalization operation.

Re claim **4**, Komaki discloses positions of the grid point are equal to each other in all input dimensions (fig. 2-3). In figures 2 and 3, Komaki discloses the grid points are equal to each other and he performs interpolation by dividing interpolation grid into equal size.

Re claim **5**, Komaki discloses input value is image data in one of RGB, CMY, and XYZ color spaces (col. 1, lines 17-36 and 51-67; col. 9, lines 1-34). In other words, Komaki teaches input luminance signals RGB.

Re claim **6**, the limitation of claim 6 is identical to claim 1 above except for an apparatus, storage means, and computation means. Therefore, claim 6 is treated with respect to grounds as set forth for claim 1 above except for an apparatus, storage

means, and computation means. As for an apparatus, Komaki teaches a data transformation apparatus for transforming one data space into another data space (col. 3, lines 39-41). As for storage means, Komaki teaches storage means for data transformation (col. 4, lines 13-27). As for computation means, Komaki teaches calculating means which corresponds to computation means (col. 4, lines 35-40).

Re claim **11**, the limitation of claim 11 is identical to claim 1 above except for a computer program product comprising a computer readable medium having a computer program code. Therefore, claim 11 is treated with respect to grounds as set forth for claim 1 above except for a computer program product comprising a computer readable medium having a computer program code. As for a computer program product comprising a computer readable medium having a computer program code, Komaki teaches a program readable by a computer (col. 4, lines 57-59). When a computer has program then executes to allow the coding to program the system.

Re claim **12**, the limitation of claim 12 is identical to claim 1 above except for a computer readable medium recorded data. Therefore, claim 12 is treated with respect to grounds as set forth for claim 1 above except for a computer readable medium recorded data. As for a computer readable medium recorded data, Komaki teaches a storage medium storing a program readable by a computer (col. 4, lines 57-59). A program readable by a computer corresponds to a computer readable medium recorded data. A recorded data is a stored data.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiries

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Thu-Thao Havan

November 17, 2002

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600